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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In re Application of:)
Dane Kenton Parker, et al)
For: CONTROLLED POLYMERIZATION)
Serial No.: 10/721,718)
Filed: November 25, 2003)

Docket No. DN2002-085
Art Unit: 1711
Examiner:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 10, 2004.

Mary A. Nicoloff

Mary A. Nicoloff

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE IN COMPLIANCE WITH 37 C.F.R. §1.98

As a means of complying with the duty of disclosure set forth in 37 C.F.R. §1.56, the Applicants are calling the following to the attention of the Patent Office and request that they be considered by the Examiner:

- United States Patent Application 2002/19505
- United States Patent 4,581,429
- United States Patent 5,401,804
- United States Patent 6,262,206
- United States Patent Application 2002/0165331
- United States Patent Application 2002/0065380
- International Patent WO 98/32726
- Database Zcaplus "Online Chemical Abstracts" Prokopov N.I., Gritskova I.A. "Characterstic features of heterophase polymerisation of styrene with simultaneous formation of surfactants at the interface" retrieved from STN, accession no. 2002:150470 Database accession no. 136:325847 XP002276879
- Prokopov N.I., Gritskova I.A. "Characterstic features of heterophase polymerisation of styrene with simultaneous formation of surfactants at the interface"(*Russ. Chem. Rev.* vol. 70 no. 9, 2001, pages 791-800)
- Cunningham, Michael F. "Living/controlled radical polymerizations in dispersed phase systems" (*Prog. Polym. Sci.* 27 (2002) 1039-1067)
- Butté, Alessandro, et al "Miniemulsion Living Free Radical Polymerization of Styrene" (*Macromolecules* 2000, 33, 3485-3487)

- Gilbert, Robert G., et al "RAFT in Emulsion Polymerization: What Makes it Different" (*Polymer Preprints* 2002, 43(2), 130)
- Bon, Stefan A.F. et al, "Controlled Radical Polymerization in Emulsion" (Macromolecules 1997, 30, 324-326)
- Moad, Graeme, et al, "Living freed radical polymerization with reversible addition – fragmentation chain transfer (the life of RAFT)" (*Polym Int* 49:993-1001 (2000))

However, the above-listed references may not be prior art under 35 U.S.C. §102 and this document should not be construed as an admission that any of the above-listed references are prior art within the meaning of 35 U.S.C. §102.

United States Patent Application 2002/19505 may be relevant to the prosecution of the subject patent application because it was cited in the International Search Report prepared in connection with PCT/US 03/41104.

United States Patent 4,581,429 may be relevant to the prosecution of the subject patent application because it describes early NMP methods and reports the use of alkoxyamines (i.e., R_2NOX) with labile O-X bonds for controlled free radical polymerization.

United States Patent 5,401,804 may be relevant to the prosecution of the subject patent application because it utilized free nitroxide control agents, such as TEMPO (i.e., 2,2,6,6-tetramethylpiperidinyl-1-oxy), to control free radical chain polymerization initiated by conventional free radical initiators.

United States Patent 6,262,206 may be relevant to the prosecution of the subject patent application because it demonstrates that nitroxides and alkoxyamines derived from reactions of nitrones with free radical sources also can be used in the practice of the subject invention.

United States Patent Application 2002/0165331 may be relevant to the prosecution of the subject patent application because it describes NMP methods based on nitroxides derived from reactions of nitric oxide (i.e., NO).

United States Patent Application 2002/0065380 may be relevant to the prosecution of the subject patent application because it describes the use of related dithioacylhydrazones (Z = $NR(N=CR_2)$) for controlled polymerization via what is likely to be a RAFT mechanism.

Database Zcaplus "Online Chemical Abstracts" Prokopov N.I., Gritskova I.A. "Characterstic features of heterophase polymerisation of styrene with simultaneous formation of surfactants at the interface" may be relevant to the prosecution of the subject patent application because it was cited in the International Search Report prepared in connection with PCT/US 03/41104.

Prokopov N.I., Gritskova I.A. "Characterstic features of heterophase polymerisation of styrene with simultaneous formation of surfactants at the interface" may be relevant to the prosecution of the subject patent application because it was cited in the International Search Report prepared in connection with PCT/US 03/41104.

Cunningham, Michael F. "Living/controlled radical polymerizations in dispersed phase systems" may be relevant to the prosecution of the subject patent application because it provides a review of living/controlled radical polymerizations in a dispersed phase system.

Butté, Alessandro, et al "Miniemulsion Living Free Radical Polymerization of Styrene" may be relevant to the prosecution of the subject patent application because it discloses a mini-emulsion living free radical polymerization of styrene.

Gilbert, Robert G., et al "RAFT in Emulsion Polymerization: What Makes it Different" may be relevant to the prosecution of the subject patent application because it discloses a reversible addition-fragmentation chain transfer (RAFT) polymerization that is conducted in an aqueous medium.

Bon, Stefan A.F. et al, "Controlled Radical Polymerization in Emulsion" may be relevant to the prosecution of the subject patent application because it discloses a controlled radical polymerization which is conducted in an emulsion.

Moad, Graeme, et al, "Living freed radical polymerization with reversible addition – fragmentation chain transfer (the life of RAFT)" may be relevant to the prosecution of the subject patent application because it discloses a living free radical polymerization with reversible addition fragmentation chain transfer (RAFT) and includes some examples of emulsion systems.

Copies of the above-referenced foreign patents and other documents, the PCT International Search Report and Form PTO-1449 are enclosed herewith.

Respectfully submitted,

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The PTO did not receive the following listed item(s) Other Documents - Updated 2nd references

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY DOCKET NO.	SERIAL NO.
DN2002-085	10/721,718
APPLICANT (S) Dane Kenton Parker, et al	
FILING DATE NOVEMBER 25, 2003	**GROUP** 1711

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Sub-class	Filing Date if Appropriate	
		2002/19505	14 Feb 2002	Macleod et al	526	204	12 Oct 2001	
		4,581,429	08 Apr 1986	Solomon et al	526	220		
		5,401,804	28 Mar. 1995	Georges et al	525	267		
		6,262,206	17 Jul. 2001	Nesvadba et al	526	220		
		2002/0165331	07 Nov. 2002	Vanhoorne et al	526	220	12 Feb. 2002	
		2002/0065380	30 May 2002	Charmot et al	526	219	25 Sep. 2001	

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Sub-Class	Translation YES	NO
		WO 98/32726	30 July 1998	International	C07C53	126		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner Initial		
		Database Zcaplus "Online Chemical Abstracts" Prokopov N.I., Gritskova I.A. "Characterstic features of heterophase polymerisation of styrene with simultaneous formation of surfactants at the interface" retrieved from STN, accession no. 2002:150470 Database accession no. 136:325847 XP002276879
		Prokopov N.I., Gritskova I.A. "Characterstic features of heterophase polymerisation of styrene with simultaneous formation of surfactants at the interface"(*Russ. Chem. Rev.* vol. 70 no. 9, 2001, pages 791-800)
		Cunningham, Michael F. "Living/controlled radical polymerizations in dispersed phase systems" (*Prog. Polym. Sci.* 27 (2002) 1039-1067)
		Butté, Alessandro, et al "Miniemulsion Living Free Radical Polymerization of Styrene" (*Macromolecules* 2000, 33, 3485-3487)
		Gilbert, Robert G., et al "RAFT in Emulsion Polymerization: What Makes it Different" (*Polymer Preprints* 2002, 43(2), 130)
		Bon, Stefan A.F. et al, "Controlled Radical Polymerization in Emulsion" (*Macromolecules* 1997, 30, 324-326)
		Moad, Graeme, et al, "Living freed radical polymerization with reversible addition – fragmentation chain transfer (the life of RAFT)" (*Polym Int* 49:993-1001 (2000))
EXAMINER		DATE CONSIDERED:

Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.